

Project Management

Module code: LCBB5005

Component 1: Essay

Google HQ

Student name: Ivaylo Bakalov

Student number: 2128950

Lecturer name: Md Sedeque Imam Shaikh

Google's magnificent new European offices are about to be revealed, and they will be located in King's Cross, which is located in London. This project, which will cost one billion pounds, is a substantial investment for Alphabet and is expected to be a historic addition to the city's landscape. Google will be the initial business to construct a skyscraper of this magnitude outside of the United States. Google will also be the sole owner of this enormous structure. Let's go more into this fascinating project and investigate its prominent characteristics, its possible impact, and some important factors to consider to ensure a successful completion.

The project lifecycle -

Concept and design are vision unveiled. Google's European office is innovative (Axelos, 2017). The Heatherwick Studios and Bjarke Ingels, the Group-designed building stands out in London's urban setting. The Landmark is Platform G, a wedge-shaped construction, runs 330 meters along the pedestrianized boulevard from King's Cross railway to Granary Square. Key features are landscaped roof terraces, an athletic track, and a pool make it unique.

Collaboration and coordination with BIM. BIM is a client demand and vital. It coordinates floor void services and includes expert contractors early. The Flexible Workplace design prioritizes workspace comfortably. Loose-fit servicing ensures adjustability.

Structure and construction innovation took this further. Utilizing the concrete-timber as materials, the structure uses reinforced concrete as well as cross-laminated timber. Also, the stepped floors, featuring staircases connect every third floorplate across the building (Association for Project Management, 2015). CLT flooring enables double- and triple-height workplaces with natural light. "Finished and Beyond:2024" the project aims to finish within 2024. The Google Campus consists with 6 Pancras Square, for example, it can house 7,000 employees. Their Legacy, beyond steel and glass, Platforms G reflects Google's culture of cooperation, creativity, and imagination (Association For Project Management, 2015).

Project methodology development -

One of the possible methods is "Waterfall Methodology". The waterfall method follows a linear flow through the project's stages (planning, development, building, etc.) (Billows, 2018). Every step must be finished before proceeding. It is structured but less flexible. As for agile technique, this iterative technique divides the project into phases with frequent input loops. It is more flexible

and adaptable but requires more forethought (Croft, 2022). Finally IPD, a collaborative method involves Google, architects, and contractors from the outset. Communication and conflict reduction improve with substantial dedication from all parties.

The factors Suggesting these methods consist - project Size & complexity, stakeholders and timeline. The headquarters' huge size and complicated architecture suggest an intricate method like IPD or an interdisciplinary approach combining aspects from multiple methodologies (Croft, 2022). The engagement of many architectural practices and Gillespie suggests a cooperative strategy that facilitates interaction and collaboration. Next year's inauguration date reflects a deadline-focused approach.

It is highly considerate of Sustainability Goals & technology collaborations. The development's BREEAM & LEED certifications may imply a lifecycle-based sustainable approach (Croft, 2022). Google's dedication to tech may indicate an easy way to integrate advanced construction technologies.

Some credential tools for project management -

PRINCE2 focusing on Process-driven project management. It provides clarity, control, and participation from stakeholders. The possible use of PRINCE2's structured methodology may help manage a huge project like this, particularly when precise records and roles are needed (Axelos, 2017).

PMBOK specialized in project management knowledge guide. It is beneficial for complete process, tool, and technique foundation. Could be used in project related concerns. The Project Management Body of Knowledge Guide can help project managers find tools, methodologies, and standards of excellence for schedule, risk, and other project issues (Billows, 2018).

PMP - Project Management Professional credential. This certification shows project management skills. The potential Benefit is that a PMP-certified project leader has a solid foundation in managing project methods, which can benefit the project (Croft, 2022).

Project management techniques for scheduling include Gantt Charts, CPM, and PERT for project timetable planning and tracking. There are possible risks involved with the project. So, managing risks also necessary. Risk management involves identifying, assessing, and mitigating project

hazards. Another technique in project management is. Communication Management utilises PMIS for project data storage and stakeholder sharing. Finally, the Quality Management which ensures the construction fulfills all requirements.

Project-management software is a key resource. Enterprise Project Management (EPM) Software, such as Oracle Primavera and Microsoft Project Server, provides project planning, scheduling, management of resources, and collaboration tools (Croft, 2022). There are also collaboration tools such as Asana and Trello can help project teams organize tasks, communicate, and share documents. Finally the BIM software, Revit and ArchiCAD can construct 3D building models for design collaboration, identifying conflicts, and cost estimation.

Gathering Requirements such as techniques, focus and deliverables. Conducting interviews, workshops, and questionnaires among stakeholders (Google, architects, and contractors) to gain an understanding of their requirements (Heldman, 2022) and expectations for the project is one of the techniques. Priority should be given to determining both the practical needs (office space, facilities) and the non-functional requirements (budget, sustainability). Finally, the deliverables which are a written list of the project's needs that are ranked in order of priority and feasibility based on significance (Heldman, 2022).

To identifying deliverables and success criteria, specify the overall outputs of the project, which should include the finished building, landscaped areas, (Hillson and Simon, 2020) and any temporary buildings that were utilized throughout the construction process. Then put in place the criteria that will be used to evaluate the success of the project. One example of this would be fulfilling the targets set for the budget and the timetable (Hillson and Simon, 2020), getting certain sustainability ratings (such as LEED or BREEAM), and ensuring that the employees are extremely satisfied with the final building.

Creating a Scope Statement -

- Purpose: Specifically, the purpose of this document is to formally establish the parameters of the project, which includes the deliverables, exclusions, timetable, and budget (Napier and Mcdaniel, 2016).
- Content: A high-level timeframe and budget should be included in the content, together with the project's history (Westland, 2019), the most important needs, the deliverables, the acceptance criteria, and any exclusions (such as continuing maintenance).
- Benefits: Among the benefits is that the scope statement acts as a point of reference for all of the project's stakeholders and assists in the management of expectations.

Identifying stakeholders is a crucial step. The Internal Stakeholders are the stakeholders from within Google include personnel from a variety of divisions (including real estate, information technology, and facilities), as well as the project manager, architects, and contractors (Westland, 2019). And the External Stakeholders comprises regulatory agencies, members of the local community, subcontractors, and suppliers. The communication plan should be developed to successfully communicate with the various stakeholder groups, taking into consideration their requirements and the communication channels that they prefer.

To properly manage a project Building a WBS is essential. It divides the project into manageable deliverables. Break down the major project deliverable (finished building) into phases (building, design) and task packages (foundation, electrical, landscaping). The core benefit of WBS is that it clearly outlines project execution, estimates resource needs, and tracks progress.

Resource Identification:

- Resource Types: Resources include people (project team, contractors), supplies, tools, and budget.
- Process: Determine WBS work package resource requirements. Skills, equipment, and material delivery times should be considered.
- Benefits: Efficient allocation of resources and early resource limitation detection.

Scheduling:

- Techniques: Use scheduling instruments like the Critical Path Method, or CPM, or Programme Evaluation and Reviewing Technique (PERT) to detect project dependencies.
- Deliverable: A project plan depicting work package durations and the overall timeline.
- Benefits: Offers a project execution roadmap, resource allocation, and progress monitoring.

Planning Risk Management:

- Process: Assess material shortages and labor disputes' likelihood and influence on the project. Develop methods to reduce the impact on identified hazards.
- Deliverable: A risk administration strategy including mitigation methods and contingency measures for anticipated risks (McCarthy, 2020).
- Benefits: Using proactive risk management can prevent delays in the project, price hikes, and quality difficulties.

Change Management Plan Development:

- Purpose: The purpose is to provide a method for managing changes to the project's timeline, budget, and scope.
- Content: Explain change request submission, evaluation, and approval. A communication mechanism should be established to alert stakeholders about approved modifications.
- Benefits: Controls changes, reduces interruption, and protects project goals.

Understanding team dynamics is imperative to ensure the success of a project. The Strategies involve building trust, open communication, and collaboration among members of the project team, builders, architects, (McCarthy, 2020) and Google officials is one of the strategies that should be implemented. Attempt to resolve disagreements constructively and encourage activities that create teams.

Collecting Information through the use of reports, conferences, site visits, and outcome measures, techniques are utilized to monitor the development of the project (Lawton, 2015). Utilise software for project management to keep track of important indicators such as adherence to the schedule and expenditures from the budget. The benefits of using data include that it supports decision-

making, assists in recognizing patterns or possible problems, and enables adjustments to be made to the plan of action if they are required (Lawton, 2015).

The procedure of evaluating project schedule and cost performance entails making regular comparisons between the actual progress made and the baseline project timeline and price (Hillson and Simon, 2020). Determine the differences and investigate the factors that led to them. Their positive aspects include the early detection of deviations, which enables corrective actions to be taken to bring the work back on track and minimize any adverse effects.

Throughout the project, record the most important events and lessons learned. This contains achievements, difficulties, and the methods that were used to overcome them. Lessons learned that have been documented are useful resources that can be used for future projects inside Google or to share good practices throughout the building sector.

There are both success and failure factors involved in the Project Management. The success factors are Clear communication, engagement of stakeholders, efficient risk management, a flexible project plan (Hillson and Simon, 2020), and good leadership from team members are all factors that contribute to accomplishment. On the other hand, the failure factors which contributed to the failure of the project, including inadequate risk management, inefficient leadership, insufficient interaction, scope creep (untamed changes), and unattainable deadlines or budgets.

Compliance with UK Architectural Codes, Security Regulations, and Disabled Access Standards: It must Be Maintained Throughout Construction. Considerations such as structural soundness, materials, and fire safety are all part of this. Fines, postponements, or even the building's closure could come from noncompliance.

Legal Entities' Agreements: Contracts with architects, builders, and subcontractors must be reviewed thoroughly and communicated clearly. This keeps disagreements to a minimum and clarifies duties, obligations, and pay for everybody involved.

Compliance with labour regulations: This pertaining to employee security, salary, including working hours is vital in the employment law context. Legal action, penalties, and harm to Google's image could result from breaches.

Legal Authorizations: In order to begin construction, dispose of rubbish, and maybe close roads, you must first acquire the appropriate licences and permissions. The project can be delayed or even halted if the necessary approvals are not obtained.

There are also the matters of ethics. Which is the core for any organization's CSR activity.

Sustainable Sourcing: It's possible that Google has moral obligations to build with resources that are sourced sustainably (Hillson and Simon, 2020). Seek out things that don't harm the environment too much, and make sure that wood is sourced from responsible forests.

Equal Treatment of Workers: Throughout the construction phase, make sure that contractors follow fair labour practices. Fair salaries and working conditions, as well as the prevention of exploitation of migrant workers, are part of this.

Participation of the Community: Keep lines of communication open with the neighbourhood residents as the project progresses (Hill, 2019). Talk to people in the area who are worried about the project's effect on traffic, noise, and the environment.

Being forthright: Keep all procurement procedures open and honest to prevent bias and promote healthy competition among vendors.

Reducing these moral and legal dangers requires involving solicitors in the planning along contracting phases. This helps spot possible problems and guarantees compliance; this is proactive legal guidance. Practicing ethical leadership is also a good habit. When a project manager makes ethics a top priority, it sends a message to everyone on the team. Keeping the lines of communication open is the key. This will help build trust and reduce the likelihood of misunderstandings with all parties involved, including community members and regulatory agencies. Finally, Reviewing and auditing compliance with laws and regulations on a regular basis allows for the early detection and resolution of problems.

Google can build the King's Cross Headquarters ethically, avoid legal trouble, and keep its good name in the community if it takes these ethical and legal factors into account. Given the sensitive nature of Google's King's Cross headquarters, it may be difficult to locate a relevant case study. But there are other ways to look at case studies that can yield interesting results:

1. Publications for the Industry: Among the many reports produced by Dodge Information & Analytics are those that discuss current and future trends in the construction industry (Hill, 2019). Keep an eye out for news about massive IT headquarters being built throughout Europe especially the UK in particular. Concerning Google's project, these reports may go over some of the best practices and obstacles in project management. White papers on construction project management are frequently published by this consulting business (Heldman, 2022). Keep an eye out for articles that discuss methods for managing complicated projects, using technology, or encouraging stakeholder engagement.

2. Articles in the News That Detail Related Projects: Look for stories that talk about how other tech companies' headquarters are being built, such as the one in Apple Park or the social network's Menlo Park site. Problems with logistics, money, or incorporating sustainability aspects are just a few examples of the project management issues that may be discussed in these articles. Look at the lessons learnt and how these projects dealt with these problems.

3. Case Studies from the Project Management Institute (PMI): A repository of case studies across several industries is offered by PMI, a professional organisation for project managers. Case studies focusing on massive building endeavours or showcasing certain project management approaches, such as BIM or IPD, are worth looking for, albeit they may not be unique to tech headquarters. Examine the case studies' stated successes and failures.

4. Honours in the Construction Sector: Seek out information about the construction industry's award ceremonies, such as the Building and Construction News Awards, as well as case studies of the finalists. These accolades are frequently bestowed upon projects that demonstrate exceptional project management, groundbreaking ideas, or commitment to sustainability. Even if Google's initiative isn't open to the public, looking at other winning projects could provide some useful information.

Project management is crucial to Google's King's Cross Headquarters' completion. Clear specifications, deliverables, and success criteria, and stakeholders prepare for project implementation. WBS, scheduling, risk management, and change management strategies keep projects on pace and prevent issues. Data collection, progress tracking, change management, and teamwork are crucial to project success. Continuous Improvement: Recording lessons learnt and

analysing project performance improves future strategies. Collaborative Methodology: IPD, which involves Google, architects, and subcontractors from the outset, may be advantageous.

Reference

Association For Project Management (2015). *Planning, scheduling, monitoring and control : the practical project management of time, cost and risk*. Princes Risborough, Buckinghamshire: Association For Project Management.

Axelos (2017). *Managing successful projects with PRINCE2*. 6th ed. London: Tso.

Bainey, K.R. and Ebook Library (2004). *Integrated IT project management : a model-centric approach*. Boston: Artech House.

Billows, D. (2018). *Project Management Tools & Techniques : Best Practices in Project Management*.

Burke, R. (2013). *Project Management : Planning and Control Techniques*. 5th ed. Hoboken, N.J.: Wiley ; Chichester.

Croft, C. (2022). *Project Management QuickStart Guide The Simplified Beginner's Guide to Precise Planning, Strategic Resource Management, and Delivering World Class Results*. La Vergne: ClydeBank Media LLC.

Dragan Milošević and Martinelli, R.J. (2016). *Project management toolbox*. Hoboken, New Jersey: John Wiley & Sons, Inc.

Heldman, K. (2022). *PMP Project Management Professional Exam Study Guide*.

Hill, G.M. (2019). *The complete project management methodology and toolkit*. Boca Raton: Crc Press.

Hillson, D. and Simon, P. (2020). *Practical project risk management*. Berrett-Koehler Publishers.

Lawton, I. (2015). *Prince2 made simple*. Weymouth: P2ms Press.

McCarthy, R. (2020). *Agile*.

Napier, R. and Mcdaniel, R. (2016). *Measuring what matters : simplified tools for aligning teams and their stakeholders*. Mountain View, Calif.: Davies-Black Pub.

Project Management Institute Project Management Institute (2021). *A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Seventh Edition and The Standard for Project Management (KOREAN)*. Project Management Institute.

Westland, J. (2019). *The project management lifecycle : a complete step-by-step methodology for initiating, planning, executing and closing a project successfully*. London: Kogan Page.